

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP) RENEWAL  
OFFICE OF AIR QUALITY**

**Peabody Coal Company  
Junction of 59 and 159  
Carlisle, Indiana 47838**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 153-13965-00009	
Original signed by Paul Dubenetzky Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 1, 2001  Expiration Date: November 1, 2006

## TABLE OF CONTENTS

<b>SECTION A</b>	<b>SOURCE SUMMARY</b>	<b>5</b>
A.1	General Information [326 IAC 2-8-3(b)]	
A.2	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.3	Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]	
A.4	FESOP Applicability [326 IAC 2-8-2]	
A.5	Prior Permit Conditions	
<b>SECTION B</b>	<b>GENERAL CONDITIONS</b>	<b>7</b>
B.1	Permit No Defense [IC 13]	
B.2	Definitions [326 IAC 2-8-1]	
B.3	Permit Term [326 IAC 2-8-4(2)]	
B.4	Enforceability [326 IAC 2-8-6]	
B.5	Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]	
B.6	Severability [326 IAC 2-8-4(4)]	
B.7	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]	
B.8	Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]	
B.9	Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.10	Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]	
B.11	Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]	
B.12	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.13	Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]	
B.14	Emergency Provisions [326 IAC 2-8-12]	
B.15	Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]	
B.16	Permit Modification, Reopening, Revocation and Reissuance, or Termination	
B.17	Permit Renewal [326 IAC 2-8-3(h)]	
B.18	Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]	
B.19	Operational Flexibility [326 IAC 2-8-15]	
B.20	Permit Revision Requirement [326 IAC 2-8-11.1]	
B.21	Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]	
B.22	Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.23	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]	
<b>SECTION C</b>	<b>SOURCE OPERATION CONDITIONS</b>	<b>17</b>
	<b>Emission Limitations and Standards [326 IAC 2-8-4(1)]</b>	
C.1	Overall Source Limit [326 IAC 2-8]	
C.2	Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]	
C.3	Opacity [326 IAC 5-1]	
C.4	Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.5	Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]	
C.6	Fugitive Dust Emissions [326 IAC 6-4]	
C.7	Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]	
C.8	Operation of Equipment [326 IAC 2-8-5(a)(4)]	
C.9	Stack Height [326 IAC 1-7]	
C.10	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61 Subpart M]	
	<b>Testing Requirements [326 IAC 2-8-4(3)]</b>	
C.11	Performance Testing [326 IAC 3-6]	

**Compliance Requirements [326 IAC 2-1.1-11]**

C.12 Compliance Requirements [326 IAC 2-1.1-11]

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

C.13 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

C.14 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]

C.15 Monitoring Methods [326 IAC 3] [40 CFR 60][40 CFR 63]

C.16 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)]  
[326 IAC 2-8-5(1)]

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

C.17 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

C.18 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

C.19 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4, 5]

C.20 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4, 5]

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

C.21 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

C.22 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

**Stratospheric Ozone Protection**

C.23 Compliance with 40 CFR 82 and 326 IAC 22-1

**SECTION D.1 FACILITY OPERATION CONDITIONS: Coal Preparation Plant . . . . . 25**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

D.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

D.1.2 Particulate Matter (PM) [326 IAC 6-3-2]

D.1.3 PM<sub>10</sub> [326 IAC 2-8-4]

D.1.4 Opacity [40 CFR Part 60.250, NSPS Subpart Y] [326 IAC 12]

D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

**Compliance Determination Requirements**

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

D.1.7 Visible Emissions Notations

**Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

D.1.8 Record Keeping Requirements

D.1.9 Reporting Requirements

**SECTION D.2 FACILITY OPERATION CONDITIONS: Fluidized Bed Thermal Dryer . . . . . 28**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

D.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

D.2.2 SO<sub>2</sub> [326 IAC 2-8-4]

D.2.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-2]

D.2.4 NO<sub>x</sub> [326 IAC 2-8-4]

D.2.5 Particulate Matter (PM) [326 IAC 6-3-2]

D.2.6 PM<sub>10</sub> [326 IAC 2-8-4]

D.2.7 PM [40 CFR Part 60.250, NSPS Subpart Y] [326 IAC 12]

D.2.8 Opacity [40 CFR Part 60.250, NSPS Subpart Y] [326 IAC 12]

D.2.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

**Compliance Determination Requirements**

D.2.10 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

D.2.11 Sulfur Dioxide (SO<sub>2</sub>) and Nitrogen Oxides (NO<sub>x</sub>)

D.2.12 Sulfur Dioxide Emissions and Sulfur Content

D.2.13 Particulate Matter (PM) and PM<sub>10</sub>

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

D.2.14 Visible Emissions Notations

D.2.15 Venturi Scrubber Parametric Monitoring

D.2.16 Perforated Tray Scrubber Parametric Monitoring

D.2.17 Venturi Scrubber Inspections

D.2.18 Cyclone Inspections

D.2.19 Cyclone Failure Detection

**Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

D.2.20 Record Keeping Requirements

D.2.21 Reporting Requirements

**SECTION D.3 FACILITY OPERATION CONDITIONS: Insignificant Activities ..... 34**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

**Certification ..... 35**

**Emergency Occurrence Report ..... 36**

**Monthly Reports ..... 38**

**Quarterly Deviation and Compliance Monitoring Report ..... 42**

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

---

The Permittee owns and operates a stationary coal preparation source.

Authorized Individual:	Mitchell S. Tilley
Source Address:	Junction of 59 and 159, Carlisle, Indiana 47838
Mailing Address:	Hawthorn Business Unit, 10001 South County Road 900 East, Carlisle, Indiana 47838
General Source Phone Number:	812 - 659 - 3392
SIC Code:	1211 and 1221
County Location:	Sullivan
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Major Source, under PSD Rules for PM; Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

---

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) coal preparation plant, installed prior to 1970, consisting of crushing, screening and conveying operations, with throughput maximums of 666, 1,100 and 1,100 tons of raw coal per hour, respectively, and limited to 5,160,000 tons of raw coal per year and 3,096,000 tons of coal crushed per year.
- (b) One (1) fluidized bed thermal dryer, equipped with two (2) cyclones and one (1) venturi and one (1) perforated tray scrubber for control of sulfur dioxide, PM, PM<sub>10</sub> and nitrogen oxides, exhausted through Stack ST-01 and emergency Stack ST-02, installed in 1992, capacity: 450 tons of dried coal per hour output, equipped with a 90 million British thermal units per hour burner, with a maximum coal burn rate of 4.0 tons per hour.

### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

---

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. (326 IAC 6-3)
- (b) Any of the following structural steel and bridge fabrication activities: Using 80 tons or less of welding consumables. (326 IAC 6-3)
- (c) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour consisting of

propane-heating at the thermal dryer or prep plant rated at 1.00 million British thermal units per hour.

- (d) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (e) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (f) Cleaners and solvents characterized as follows: having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38 degrees Celsius (100 degrees Fahrenheit) or; having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20 degrees Celsius (68 degrees Fahrenheit); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (g) Closed loop heating and cooling systems.
- (h) Paved and unpaved roads and parking lots with public access.
- (i) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate; ammonia; and sulfur trioxide.
- (j) A laboratory as defined in 326 IAC 2-7-1(20)(C).
- (k) Other activities or categories not previously identified: The following kerosene heaters, two (2) rated at 0.350 million British thermal units per hour each, and four (4) rated at 0.150 million British thermal units per hour each.

#### A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

#### A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

## SECTION B

## GENERAL CONDITIONS

### B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

### B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

### B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

### B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

### B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

### B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

- (a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual"

as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

- (c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]**

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]**

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; and
  - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

**B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]**

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:



Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
  - (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]**

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

**B.14 Emergency Provisions [326 IAC 2-8-12]**

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)  
or,

Telephone No.: 317-233-5674 (ask for Compliance Section)  
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]**

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report.

The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
  - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]**

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.17 Permit Renewal [326 IAC 2-8-3(h)]**

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
  - (1) A timely renewal application is one that is:
    - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
    - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
  - (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

**B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]**

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

**B.19 Operational Flexibility [326 IAC 2-8-15]**

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:
  - (1) A brief description of the change within the source;
  - (2) The date on which the change will occur;
  - (3) Any change in emissions; and
  - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

**B.20 Permit Revision Requirement [326 IAC 2-8-11.1]**

A modification, construction, or reconstruction is governed by 326 IAC 2 and 326 IAC 2-8-11.1.

**B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]**

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:  
  
Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.



## SECTION C

## SOURCE OPERATION CONDITIONS

Entire Source
---------------

### Emissions Limitations and Standards [326 IAC 2-8-4(1)]

#### C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

#### C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

#### C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity

monitor) in a six (6) hour period.

**C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]**

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

**C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]**

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

**C.6 Fugitive Dust Emissions [326 IAC 6-4]**

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**C.7 Fugitive Particulate Matter Emission Limitations [326 IAC 6-5]**

Pursuant to 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations), fugitive particulate matter emissions shall be controlled according to the plan submitted for Operation Permit 74-04-92-0056 issued on May 18, 1989 and contained in the FESOP 153-6411, issued on December 11, 1996. The plan consists of spray water and chemical dust suppressants on road on an as-needed basis.

**C.8 Operation of Equipment [326 IAC 2-8-5(a)(4)]**

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

**C.9 Stack Height [326 IAC 1-7]**

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4(d)(3), (e), and (f), and 326 IAC 1-7-5(d) are not federally enforceable.

**C.10 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

- (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
- (2) If there is a change in the following:

- (A) Asbestos removal or demolition start date;
  - (B) Removal or demolition contractor; or
  - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

#### **Testing Requirements [326 IAC 2-8-4(3)]**

##### **C.11 Performance Testing [326 IAC 3-6]**

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

#### **Compliance Requirements [326 IAC 2-1.1-11]**

##### **C.12 Compliance Requirements [326 IAC 2-1.1-11]**

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

#### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

##### **C.13 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]**

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

##### **C.14 Maintenance of Emission Monitoring Equipment [326 IAC 2-8-4(3)(A)(iii)]**

- (a) In the event that a breakdown of the emission monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no often less than once an hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

##### **C.15 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

##### **C.16 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]**

- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.

- (b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (  $\pm 2\%$  ) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

**Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**C.17 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:  
  
Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue, P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
  
within ninety (90) days prior to start-up of the source.  
  
The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**C.18 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]**

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68; or

- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.19 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole of information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:
  - (1) This condition;
  - (2) The Compliance Determination Requirements in Section D of this permit;
  - (3) The Compliance Monitoring Requirements in Section D of this permit;
  - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
  - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
    - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
    - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps may constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

- (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
- (3) An automatic measurement was taken when the process was not operating.
- (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) At its discretion, IDEM may excuse the Permittee's failure to perform the monitoring and record keeping as required by Section D, if the Permittee provides adequate justification and documents that such failures do not exceed five percent (5%) of the operating time in any quarter. Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

**C.20 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**C.21 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

- (a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are

available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.22 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

- (a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue, P. O. Box 6015  
Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years.

**Stratospheric Ozone Protection**

**C.23 Compliance with 40 CFR 82 and 326 IAC 22-1**

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.



## SECTION D.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]: Coal Preparation Plant

- (a) One (1) coal preparation plant, installed prior to 1970, consisting of crushing, screening and conveying operations, with throughput maximums of 666, 1,100 and 1,100 tons of raw coal per hour, respectively, and limited to 5,160,000 tons of raw coal per year and 3,096,000 tons of coal crushed per year.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60 Subpart Y.

#### D.1.2 Particulate Matter (PM) [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the coal preparation screening and conveying operations shall not exceed 78.8 pounds per hour each when operating at a process weight rate of 1,100 tons per hour each.
- (b) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the coal preparation crushing operation shall not exceed 72.4 pounds per hour when operating at a process weight rate of 666 tons per hour.
- (c) Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

- (d) Condition D.1.1 of F 153-6411-00009, issued December 11, 1996 that stated that pursuant to 326 IAC 6-3 (Process Operations), the particulate matter emissions from the coal preparation processing operations shall not exceed 56.8 pounds per hour has been revised to specify the allowable PM emission rates for the individual operations and not truncate that emission rate to render the requirements of 326 IAC 2-2 not applicable. Thus Condition D.1.1 of F 153-6411-0009 is hereby rescinded.

#### D.1.3 PM<sub>10</sub> [326 IAC 2-8-4]

- (a) The amount of coal processed in the coal preparation plant shall not exceed 5,160,000 tons per three-hundred and sixty-five (365) consecutive day period, and
- (b) The amount of coal crushed by the crushing operation in the coal preparation plant shall not exceed 3,096,000 tons per three-hundred and sixty-five (365) consecutive day period.
- (c) Compliance with the limits in (a) and (b) is equivalent to total PM<sub>10</sub> emissions of 47.2 tons per year, consisting of 31.7 tons per year of nonfugitive emissions (loading and unloading of coal, crushing, screening and conveying operations), equivalent to 7.24 pounds per hour.

Therefore, the requirements of 326 IAC 2-7 do not apply.

- (d) Condition D.1.2 of F 153-6411-00009, issued December 11, 1996 that stated that the coal processed shall be limited to 5,160,000 tons per rolling 365-day period. This limit is necessary to ensure that the PM<sub>10</sub> emissions from the nonfugitive coal preparation processing operations shall not exceed 31.7 tons per rolling 365-day period has been revised to account for PM<sub>10</sub> emissions from fugitive activities. Thus Condition D.1.2 of F 153-6411-0009 is hereby rescinded.

**D.1.4 Opacity [40 CFR Part 60.250, NSPS Subpart Y] [326 IAC 12]**

Pursuant to NSPS Subpart Y, the opacity shall be less than twenty (20%) percent for coal processing and conveying equipment, coal storage system, and coal transfer and loading systems.

**D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

**Compliance Determination Requirements**

**D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]**

Within twelve (12) months after issuance of this permit or within five (5) years from the date of the last valid compliance test, in order to demonstrate compliance with Condition D.1.4, the Permittee shall perform opacity testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**D.1.7 Visible Emissions Notations**

- (a) Visible emission notations of the coal preparation plant shall be performed during normal daylight operations when exhausting to the atmosphere once per shift. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

**Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

**D.1.8 Record Keeping Requirements**

---

- (a) To document compliance with Condition D.1.3(a), the Permittee shall maintain records of the amount of coal processed per day.
- (b) To document compliance with Condition D.1.3(b), the Permittee shall maintain records of the amount of coal crushed per day.
- (c) To document compliance with Condition D.1.7, the Permittee shall maintain records of visible emission notations of the coal preparation plant once per shift.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**D.1.9 Reporting Requirements**

---

A quarterly summary of the information to document compliance with Conditions D.1.3(a) and (b) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]: Fluidized Bed Thermal Dryer

- (b) One (1) fluidized bed thermal dryer, equipped with two (2) cyclones and one (1) venturi and one (1) perforated tray scrubber for control of sulfur dioxide, PM, PM<sub>10</sub> and nitrogen oxides, exhausted through Stack ST-01 and emergency Stack ST-02, installed in 1992, capacity: 450 tons of dried coal per hour output, equipped with a 90 million British thermal units per hour burner, with a maximum coal burn rate of 4.0 tons per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 60, Subpart A]

The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR 60 Subpart Y.

#### D.2.2 SO<sub>2</sub> [326 IAC 2-8-4]

- (a) The coal burned in the fluidized bed thermal dryer burner shall not exceed:
- (1) A total weight of 14,854 tons per three-hundred and sixty-five (365) consecutive day period, and
  - (2) A sulfur content of three (3.0%) percent by weight.
- (b) These fuel usage and sulfur content limitations are equivalent to sulfur dioxide emissions of 99.0 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.
- (c) The amount of diesel oil used for start-up in the fluidized bed thermal dryer burner shall not exceed 35,064 gallons of diesel oil per three-hundred and sixty-five (365) consecutive day period, equivalent to sulfur dioxide emissions of 0.130 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.

#### D.2.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-2]

Pursuant to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations), the SO<sub>2</sub> emissions from the fluidized bed thermal dryer burner shall not exceed six (6.0) pounds per million British thermal units heat input while combusting coal.

#### D.2.4 NO<sub>x</sub> [326 IAC 2-8-4]

- (a) The NO<sub>x</sub> emissions from the fluidized bed thermal dryer shall be less than 22.0 pounds per hour, equivalent to less than 96.6 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.
- (b) Condition D.2.3 of F 153-6411-00009, issued December 11, 1996 that stated that the NO<sub>x</sub> emissions from the thermal dryer shall not exceed 99.0 tons per rolling 365-day period has been revised to account for NO<sub>x</sub> emissions from insignificant activities. Thus Condition D.2.3 of F 153-6411-0009 is hereby rescinded.

**D.2.5 Particulate Matter (PM) [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the fluidized bed thermal dryer operations shall not exceed 67.7 pounds per hour when operating at a process weight rate of 450 tons per hour.

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

**D.2.6 PM<sub>10</sub> [326 IAC 2-8-4]**

- (a) The PM<sub>10</sub> emissions from the fluidized bed thermal dryer shall not exceed 11.6 pounds per hour, equivalent to 50.8 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.
- (b) Condition D.2.1 of F 153-6411-00009, issued December 11, 1996 that stated that the PM<sub>10</sub> emissions from the thermal dryer shall not exceed 62.3 tons per rolling 365-day period has been revised to allow for the fugitive PM<sub>10</sub> emissions from the coal preparation plant. Thus Condition D.2.1 of F 153-6411-0009 is hereby rescinded.

**D.2.7 PM [40 CFR Part 60.250, NSPS Subpart Y] [326 IAC 12]**

Pursuant to NSPS Subpart Y, the PM emissions from the fluidized bed thermal dryer shall not exceed a grain loading of 0.031 grains per dry standard cubic foot of outlet air, equivalent to 18.06 pounds of PM per hour at flow rate of 68,000 cubic feet per minute.

**D.2.8 Opacity [40 CFR Part 60.250, NSPS Subpart Y] [326 IAC 12]**

Pursuant to NSPS Subpart Y, the opacity shall be less than twenty (20%) percent for the fluidized bed thermal dryer.

**D.2.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control devices.

**Compliance Determination Requirements**

**D.2.10 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]**

Within five (5) years of the date of the last valid compliance test, in order to demonstrate compliance with Conditions D.2.5, D.2.6, D.2.7 and D.2.8, the Permittee shall perform PM, PM<sub>10</sub> and opacity testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>. Testing shall be conducted in accordance with Section C- Performance Testing.

**D.2.11 Sulfur Dioxide (SO<sub>2</sub>) and Nitrogen Oxides (NO<sub>x</sub>)**

In order to comply with Conditions D.2.2, D.2.3 and D.2.4, the venturi and perforated tray scrubbers for SO<sub>2</sub> and NO<sub>x</sub> control shall be in operation and control emissions from the fluidized bed thermal dryer at all times that the dryer is in operation.

**D.2.12 Sulfur Dioxide Emissions and Sulfur Content**

Pursuant to 326 IAC 7-2, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed six (6.0) pounds million British thermal units heat input. Compliance shall be determined utilizing the following options:

- (a) Providing vendor analysis of coal delivered, if accompanied by a certification from the fuel supplier as described under 40 CFR 60.48c(f)(3). The certification shall include:
  - (1) The name of the coal supplier; and
  - (2) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the coal was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected); and
  - (3) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and
  - (4) The methods used to determine the properties of the coal; and
- (b) Sampling and analyzing the coal using one of the following procedures:
  - (1) Minimum Coal Sampling Requirements and Analysis Methods:
    - (A) The coal sample acquisition point shall be at a location where representative samples of the total coal flow to be combusted by the facility or facilities may be obtained. A single as-bunkered or as-burned sampling station may be used to represent the coal to be combusted by multiple facilities using the same stockpile feed system;
    - (B) Coal shall be sampled at least one (1) time per day;
    - (C) Minimum sample size shall be five hundred (500) grams;
    - (D) Samples shall be composited and analyzed at the end of each calendar quarter;
    - (E) Preparation of the coal sample, heat content analysis, and sulfur content analysis shall be determined pursuant to 326 IAC 3-7-2(c), (d), (e); or
  - (2) Sample and analyze the coal pursuant to 326 IAC 3-7-3; or
- (c) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boiler, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6, which is conducted with such frequency as to generate the amount of information required by (a) or (b) above. [326 IAC 7-2-1(b)]

A determination of noncompliance pursuant to any of the methods specified in (a), (b), or (c) above shall not be refuted by evidence of compliance pursuant to the other method.

#### D.2.13 Particulate Matter (PM) and PM<sub>10</sub>

In order to comply with Conditions D.2.5, D.2.6 and D.2.7, the cyclones for PM and PM<sub>10</sub> control shall be in operation and control emissions from the fluidized bed thermal dryer at all times that the dryer is in operation.

### **Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

#### **D.2.14 Visible Emissions Notations**

- (a) Visible emission notations of the fluidized bed thermal dryer stack exhaust ST-01 shall be performed during normal daylight operations when exhausting to the atmosphere once per shift. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

#### **D.2.15 Venturi Scrubber Parametric Monitoring**

- (a) The Permittee shall record the total static pressure drop and scrubbing liquor (water) flow rate readings across the venturi scrubber controlling the fluidized bed thermal dryer, at least once per shift when the fluidized bed thermal dryer is in operation. Unless operated under conditions for which the Compliance Response specifies otherwise, the pressure drop across the venturi scrubber shall be maintained within the range of 30.0 to 50.0 inches of water and the flow rate for the scrubbing liquor shall be maintained within the range of 160 to 180 gallons of water per minute or a range and a flow rate established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.
- (b) The Permittee shall record the liquor recirculation rate and liquor pH once daily, as well as liquor solids/concentration, and liquor total dissolved solids once weekly.

#### **D.2.16 Perforated Tray Scrubber Parametric Monitoring**

The Permittee shall record the pH of the perforated tray scrubber liquor once daily. Unless operated under conditions for which the Compliance Response specifies otherwise, the pH of the perforated tray scrubber liquor shall be maintained at a pH no less than 6.5 or a pH established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pH is outside of the above mentioned range for any one reading.

#### **D.2.17 Venturi Scrubber Inspections**

The Permittee shall make internal inspection for air leaks and determine the fan condition and operation status of the venturi scrubber once per month.

#### **D.2.18 Cyclone Inspections**

An inspection shall be performed each calendar quarter of all cyclones controlling the fluidized bed thermal dryer operation when venting to the atmosphere. A cyclone inspection shall be performed

within three months of redirecting vents to the atmosphere and every three (3) months thereafter. Inspections are optional when venting to the indoors.

#### D.2.19 Cyclone Failure Detection

---

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

### **Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### D.2.20 Record Keeping Requirements

---

- (a) To document compliance with Condition D.2.2(a) and (b) and D.2.3, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken and shall be complete and sufficient to establish compliance with the SO<sub>2</sub> emission limits established in Condition D.2.2(a) and (b) and D.2.3.
  - (1) Calendar dates covered in the compliance determination period; and;
  - (2) Actual daily coal usage since last compliance determination period; and;
  - (3) Daily sulfur content, heat content, and ash content; and;
  - (4) Sulfur dioxide emission rates; and;
  - (5) Vendor analysis of coal and coal supplier certification.
- (b) To document compliance with Condition D.2.2(c), the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken and shall be complete and sufficient to establish compliance with the SO<sub>2</sub> emission limits established in Condition D.2.2(c).
  - (1) Calendar dates covered in the compliance determination period; and;
  - (2) Actual monthly diesel oil usage since last compliance determination period.
- (c) To document compliance with Condition D.2.14, the Permittee shall maintain records of visible emission notations of the fluidized bed thermal dryer stack exhaust once per shift.
- (d) To document compliance with Condition D.2.15, the Permittee shall maintain the following:
  - (1) Records of the following venturi scrubber operational parameters during normal operation when venting to the atmosphere:
    - (A) Inlet and outlet differential static pressure once per shift;
    - (B) Liquor flow rate once per shift,
    - (C) Liquor recirculation rate and liquor pH once daily, and



- (D) Liquor solids/concentration and liquor total dissolved solids once weekly.
- (2) Documentation of the dates vents are redirected.
- (e) To document compliance with Condition D.2.16, the Permittee shall maintain records of the pH of the perforated tray scrubbing liquor once per shift.
- (f) To document compliance with Condition D.2.17, the Permittee shall maintain records of the results of the venturi scrubber inspections required under Condition D.2.17 and the dates the vents are redirected.
- (g) To document compliance with Condition D.2.18, the Permittee shall maintain records of the results of the inspections required under Condition D.2.18 and the dates the vents are redirected.
- (h) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.2.21 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.2(a) and D.2.2(c) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

### SECTION D.3

### FACILITY OPERATION CONDITIONS

#### Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. (326 IAC 6-3)
- (b) Any of the following structural steel and bridge fabrication activities: Using 80 tons or less of welding consumables. (326 IAC 6-3)

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-8-4(1)]

##### D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the brazing equipment, cutting torches, soldering equipment, welding equipment and structural steel and bridge fabrication activities shall not exceed allowable PM emission rate based on the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Peabody Coal Company  
Source Address: Junction of 59 and 159, Carlisle, Indiana 47838  
Mailing Address: Hawthorn Business Unit, 10001 South County Road 900 East, Carlisle, Indiana 47838  
FESOP No.: F 153-13965-00009

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- 9 Annual Compliance Certification Letter
- 9 Test Result (specify) \_\_\_\_\_
- 9 Report (specify) \_\_\_\_\_
- 9 Notification (specify) \_\_\_\_\_
- 9 Affidavit (specify) \_\_\_\_\_
- 9 Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE BRANCH  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Phone: 317-233-5674  
Fax: 317-233-5967**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Peabody Coal Company  
Source Address: Junction of 59 and 159, Carlisle, Indiana 47838  
Mailing Address: Hawthorn Business Unit, 10001 South County Road 900 East, Carlisle, Indiana 47838  
FESOP No.: F 153-13965-00009

**This form consists of 2 pages**

**Page 1 of 2**

**9** This is an emergency as defined in 326 IAC 2-7-1(12)  
CThe Permittee must notify the Office of Air Quality (OAQ), within four **(4)** business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and  
CThe Permittee must submit notice in writing or by facsimile within two **(2)** days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:

Control Equipment:

Permit Condition or Operation Limitation in Permit:

Description of the Emergency:

Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Monthly Report**

Source Name: Peabody Coal Company  
Source Address: Junction of 59 and 159, Carlisle, Indiana 47838  
Mailing Address: Hawthorn Business Unit, 10001 South County Road 900 East, Carlisle, Indiana 47838  
FESOP No.: F 153-13965-00009  
Facility: Coal Preparation Plant  
Parameter: Amount of Coal Processed  
Limit: 5,160,000 tons per three-hundred and sixty-five (365) consecutive day period.

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Day	Tons of coal this day	Tons of coal last 364 days	Total tons of coal last 365 days	Day	Tons of coal this day	Tons of coal last 364 days	Total tons of coal last 365 days
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16				No. of deviations			

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Monthly Report**

Source Name: Peabody Coal Company  
Source Address: Junction of 59 and 159, Carlisle, Indiana 47838  
Mailing Address: Hawthorn Business Unit, 10001 South County Road 900 East, Carlisle, Indiana 47838  
FESOP No.: F 153-13965-00009  
Facility: Coal Preparation Plant  
Parameter: Amount of Coal Crushed  
Limit: 3,096,000 tons per three-hundred and sixty-five (365) consecutive day period.

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Day	Tons of coal this day	Tons of coal last 364 days	Total tons of coal last 365 days	Day	Tons of coal this day	Tons of coal last 364 days	Total tons of coal last 365 days
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16				No. of deviations			

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Monthly Report**

Source Name: Peabody Coal Company  
Source Address: Junction of 59 and 159, Carlisle, Indiana 47838  
Mailing Address: Hawthorn Business Unit, 10001 South County Road 900 East, Carlisle, Indiana 47838  
FESOP No.: F 153-13965-00009  
Facility: Fluidized Bed Thermal Dryer Burner  
Parameter: Amount of coal burned  
Limit: 14,854 tons per three-hundred and sixty-five (365) consecutive day period.

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Day	Tons of coal this day	Tons of coal last 364 days	Total tons of coal last 365 days	Day	Tons of coal this day	Tons of coal last 364 days	Total tons of coal last 365 days
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16				No. of deviations			

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FESOP Monthly Report**

Source Name: Peabody Coal Company  
Source Address: Junction of 59 and 159, Carlisle, Indiana 47838  
Mailing Address: Hawthorn Business Unit, 10001 South County Road 900 East, Carlisle, Indiana 47838  
FESOP No.: F 153-13965-00009  
Facility: Fluidized Bed Thermal Dryer Burner  
Parameter: Amount of Diesel Oil Burned During Start-up  
Limit: 35,064 gallons per three-hundred and sixty-five (365) consecutive day period

Month: \_\_\_\_\_ Year: \_\_\_\_\_

Day	Gallons of oil this day	Gallons of oil last 364 days	Total gallons of oil last 365 days	Day	Gallons of oil this day	Gallons of oil last 364 days	Total gallons of oil last 365 days
1				17			
2				18			
3				19			
4				20			
5				21			
6				22			
7				23			
8				24			
9				25			
10				26			
11				27			
12				28			
13				29			
14				30			
15				31			
16				No. of deviations			

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Peabody Coal Company  
Source Address: Junction of 59 and 159, Carlisle, Indiana 47838  
Mailing Address: Hawthorn Business Unit, 10001 South County Road 900 East, Carlisle, Indiana 47838  
FESOP No.: F 153-13965-00009

**Months:** \_\_\_\_\_ **to** \_\_\_\_\_ **Year:** \_\_\_\_\_

Page 1 of 2

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

  

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

  

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

9      No deviation occurred in this quarter.

9      Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Form Completed By: \_\_\_\_\_

Title/Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

### Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP)

**Source Name:** Peabody Coal Company  
**Source Location:** Junction of 59 and 159, Carlisle, Indiana 47838  
**County:** Sullivan  
**FESOP:** F 153-13965-00009  
**SIC Code:** 124  
**Permit Reviewer:** Mark L. Kramer

On September 24, 2001, the Office of Air Quality (OAQ) had a notice published in the Sullivan Daily Times, Sullivan, Indiana, stating that Peabody Coal Company had applied for a Federally Enforceable State Operating Permit (FESOP) to operate a coal preparation source. The notice also stated that OAQ proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP should be issued as proposed.

Upon further review, the OAQ has decided to make the following changes to the FESOP: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded**):

#### Change 1:

Condition D.1.3 has been revised to clarify which facilities are limited as follows:

#### D.1.3 PM<sub>10</sub> [326 IAC 2-8-4]

- (a) The amount of coal processed **in the coal preparation plant** shall not exceed 5,160,000 tons per three-hundred and sixty-five (365) consecutive day period, and
- (b) The amount of coal crushed **by the crushing operation in the coal preparation plant** shall not exceed 3,096,000 tons per three-hundred and sixty-five (365) consecutive day period.
- (c) Compliance with the limits in (a) and (b) is equivalent to total PM<sub>10</sub> emissions of 47.2 tons per year, consisting of 31.7 tons per year of nonfugitive emissions (**loading and unloading of coal, crushing, screening and conveying operations**), equivalent to 7.24 pounds per hour. Therefore, the requirements of 326 IAC 2-7 do not apply.
- (d) Condition D.1.2 of F 153-6411-00009, issued December 11, 1996 that stated that the coal processed shall be limited to 5,160,000 tons per rolling 365-day period. This limit is necessary to ensure that the PM<sub>10</sub> emissions from the nonfugitive coal preparation processing operations shall not exceed 31.7 tons per rolling 365-day period has been revised to account for PM<sub>10</sub> emissions **from** fugitive activities. Thus Condition D.1.2 of F 153-6411-0009 is hereby rescinded.

#### Change 2:

Since the coal preparation plant utilizes belts-driven coal cleaning equipment and does not utilize pneumatic coal cleaning equipment, the NSPS Subpart Y grain loading and opacity limits for pneumatic coal cleaning equipment are not applicable to this coal preparation plant. In addition, since the non-fugitive PM and PM<sub>10</sub> emissions are not emitted through stacks, the testing

requirement for the coal preparation plant to show compliance with 326 IAC 6-3-2 and 326 IAC 2-8-4 have been deleted. Therefore, Conditions D.1.4 and D.1.5 (a) have been deleted and Condition D.1.7 (now D.1.6) has been revised as follows: All subsequent conditions have been renumbered.

~~D.1.4~~ ~~PM [40 CFR Part 60.250, NSPS Subpart Y] [326 IAC 12]~~

~~Pursuant to NSPS Subpart Y, the PM emissions from the pneumatic coal cleaning equipment shall not exceed a grain loading of 0.018 grains per dry standard cubic foot of outlet air.~~

~~D.1.54~~ ~~Opacity [40 CFR Part 60.250, NSPS Subpart Y] [326 IAC 12]~~

~~(a) Pursuant to NSPS Subpart Y, the opacity shall be less than ten (10%) percent for pneumatic coal cleaning equipment, and~~

~~(b) Pursuant to NSPS Subpart Y, the opacity shall be less than twenty (20%) percent for coal processing and conveying equipment, coal storage system, and coal transfer and loading systems.~~

~~D.1.76~~ ~~Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]~~

~~Within twelve (12) months after issuance of this permit or within five (5) years from the date of the last valid compliance test, in order to demonstrate compliance with Conditions ~~D.1.2, D.1.3, D.1.4 and D.1.45~~, the Permittee shall perform PM, PM<sub>10</sub> and opacity testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM<sub>10</sub> includes filterable and condensable PM<sub>10</sub>. Testing shall be conducted in accordance with Section C- Performance Testing.~~

**Indiana Department of Environmental Management  
Office of Air Quality**

**Technical Support Document (TSD)  
for a Federally Enforceable State Operating Permit (FESOP) Renewal**

**Source Background and Description**

<b>Source Name:</b>	<b>Peabody Coal Company</b>
<b>Source Location:</b>	<b>Junction of 59 and 159, Carlisle, Indiana 47838</b>
<b>County:</b>	<b>Sullivan</b>
<b>SIC Code:</b>	<b>1211 and 1221</b>
<b>Operation Permit No.:</b>	<b>F 153-13965-00009</b>
<b>Permit Reviewer:</b>	<b>Mark L. Kramer</b>

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Peabody Coal Company relating to the operation of a coal preparation source. Peabody Coal Company was issued FESOP 153-6411-00009 on December 11, 1996.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) coal preparation plant, installed prior to 1970, consisting of crushing, screening and conveying operations, with throughput maximums of 666, 1,100 and 1,100 tons of raw coal per hour, respectively, and limited to 5,160,000 tons of raw coal per year and 3,096,000 tons of coal crushed per year.
- (b) One (1) fluidized bed thermal dryer, equipped with two (2) cyclones and one (1) venturi and one (1) perforated tray scrubber for control of sulfur dioxide, PM, PM<sub>10</sub> and nitrogen oxides, exhausted through Stack ST-01 and emergency Stack ST-02, installed in 1992, capacity: 450 tons of dried coal per hour output, equipped with a 90 million British thermal units per hour burner, with a maximum coal burn rate of 4.0 tons per hour.

**Unpermitted Emission Units and Pollution Control Equipment**

There are no unpermitted facilities operating at this source during this review process.

**New Emission Units and Pollution Control Equipment Receiving New Source Review Approval**

There are no new facilities proposed at this source during this review process.

**Insignificant Activities**

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. (326 IAC 6-3)
- (b) Any of the following structural steel and bridge fabrication activities: Using 80 tons or less

of welding consumables. (326 IAC 6-3)

- (c) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour consisting of propane-heating at the thermal dryer or prep plant rated at 1.00 million British thermal units per hour.
- (d) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (e) Application of oils, greases, lubricants or other nonvolatile materials applied as temporary protective coatings.
- (f) Cleaners and solvents characterized as follows: having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38 degrees Celsius (100 degrees Fahrenheit) or; having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20 degrees Celsius (68 degrees Fahrenheit); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (g) Closed loop heating and cooling systems.
- (h) Paved and unpaved roads and parking lots with public access.
- (i) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate; ammonia; and sulfur trioxide.
- (j) A laboratory as defined in 326 IAC 2-7-1(20)(C).
- (k) Other activities or categories not previously identified: The following kerosene heaters, two (2) rated at 0.350 million British thermal units per hour each, and four (4) rated at 0.150 million British thermal units per hour each.

### Existing Approvals

- (a) FESOP 153-6411-00009, issued on December 11, 1996 and expires on December 11, 2001, and
- (b) First Significant Revision 153-8247-00009, issued on August 4, 1997.

All conditions from previous approvals were incorporated into this FESOP except the following:

- (a) Note that the FESOP limits of less than ninety-nine (99) tons per three-hundred-sixty-five (365) consecutive day period and less than nine (9.0) and twenty-four (24.0) tons per twelve (12) consecutive month period for a single and combination of HAPs have been changed to less than one hundred (100) tons per three-hundred-sixty-five (365) consecutive day period and the potential to emit a single and combination of HAPs to less than ten (10) and twenty-five (25) tons per year, respectively.
- (b) The frequency of visible emission notations, pressure drop and liquor flow rates have been changed from daily to once per shift.
- (c) Condition D.1.1 Particulate Matter

Pursuant to 326 IAC 6-3 (Process Operations), the particulate matter emissions from the coal preparation processing operations shall not exceed 56.8 pounds per hour.

Reason not incorporated:

Since this PM emission limit of 56.8 pounds per hour, equivalent to less than 249 tons per year was truncated, the full allowable PM emission rates pursuant to 326 IAC 6-3-2 will be incorporated into the permit for nonfugitive operations; crushing, screening and conveying.

(d) Condition D.1.2 PM<sub>10</sub>

The coal processed shall be limited to 5,160,000 tons per rolling 365-day period. This limit is necessary to ensure that the PM<sub>10</sub> emissions from the nonfugitive coal preparation processing operations shall not exceed 31.7 tons per rolling 365-day period. Therefore, the requirements of 326 IAC 2-7 do not apply.

Reason not incorporated:

The PM<sub>10</sub> emission limit has been changed to include fugitive and nonfugitive emissions, whereas before just the nonfugitive emissions were specifically listed.

(e) Condition D.2.3 Nitrogen Oxides (NO<sub>x</sub>)

The NO<sub>x</sub> emissions from the thermal dryer shall not exceed 99.0 tons per rolling 365-day period. Therefore, the requirements of 326 IAC 2-7 do not apply.

Reason not incorporated:

The condition has been revised to account for NO<sub>x</sub> emissions from insignificant activities.

(f) Condition D.2.1 PM<sub>10</sub>

The PM<sub>10</sub> emissions from the thermal dryer shall not exceed 62.3 tons per rolling 365-day period. Therefore, the requirements of 326 IAC 2-7 do not apply.

Reason not incorporated:

This condition has been revised to allow for the fugitive PM<sub>10</sub> emissions from the coal preparation plant.

### Enforcement Issue

There are no enforcement actions pending.

### Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was



received on February 26, 2001. Additional information was received on July 25 and August 13, 2001.

There was no notice of completeness letter mailed to the source.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations on pages 1 to 10.

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were calculated in the Appendix. The previous FESOP reported the uncontrolled potential emission with the throughput limits.

Pollutant	Unrestricted Potential Emissions (tons/year)
PM	42,296
PM <sub>10</sub>	40,341
SO <sub>2</sub>	1,157
VOC	1.00
CO	9.58
NO <sub>x</sub>	142

Note: For the purpose of determining Title V applicability for particulates, PM<sub>10</sub>, not PM, is the regulated pollutant in consideration.

HAPs	Unrestricted Potential Emissions (tons/year)
TOTAL	1.00

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> are equal to or greater than one hundred (100) tons per year in Sullivan County. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions

Since the original coal preparation plant, constructed prior to 1992, did not include a thermal dryer, the operation was not one of the twenty-eight (28) listed source categories under 326 IAC 2-2. Therefore, the fugitive emissions from the coal preparation plant were not counted toward determination of PSD and Emission Offset applicability.

The addition of the thermal dryer in 1992, which qualified as a minor PSD modification to an existing minor PSD source, made this source an existing major PSD source and also made the source one of the twenty-eight (28) listed source categories under 326 IAC 2-2. Therefore, after the 1992 modification the fugitive emissions from the coal preparation plant

are counted toward determination of PSD and Emission Offset applicability.

### Potential to Emit After Issuance

The source, issued a FESOP on December 11, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit. Since the source has not constructed any new emission units, the source's potential to emit is based on the emission units included in the original FESOP. (F 153-6411-00009; issued on December 11, 1996).

	<b>Potential to Emit After Issuance</b> (tons/year)						
Process/emission unit	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Coal Preparation Plant Operations	189	47.2	-	-	-	-	-
Fluidized Bed Thermal Dryer	79.1	less than 50.8	99.0	-	4.46	less than 96.6	-
Insignificant Activities	2.00	2.00	0.241	1.00	0.732	3.40	1.00
Total PTE After Issuance	270	less than 100	less than 100	1.00	5.19	less than 100	Single less than 10 Total less than 25

The fluidized bed thermal dryer allowable PM emission rate is 0.031 grains per dry standard cubic foot of exhaust air, equivalent to 79.1 tons per year pursuant to the New Source Performance Standard, 326 IAC 12, 40 CFR Part 60.250, Subpart Y. The PM<sub>10</sub> potential to emit after issuance for the fluidized bed thermal dryer is limited to the balance (50.8 tons per year) of the FESOP limit of less than one hundred (100) tons per year.

### County Attainment Status

The source is located in Sullivan County.

Pollutant	Status
PM <sub>10</sub>	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Sullivan County has been designated as attainment or unclassified for ozone.

### **Federal Rule Applicability**

- (a) The fluidized bed thermal dryer is subject to the New Source Performance Standard, 326 IAC 12, 40 CFR Part 60.250, Subpart Y. Particulate matter emissions from the thermal dryer are limited to 0.031 grains per dry standard cubic foot of exhaust air and twenty percent (20%) opacity. The 0.070 grams per dry standard cubic meter (0.031 grains per dry standard cubic foot) of exhaust air coupled with a maximum flow rate of 68,000 cubic feet per minute results in an allowable PM emission rate of 18.06 pounds per hour, equivalent to 79.1 tons per year.

Since the controlled potential PM emission rate from the fluidized bed thermal dryer is 39.7 tons per year (see page 1 of Appendix A), the fluidized bed thermal dryer complies with this federal rule.

- (b) The coal preparation plant is subject to the New Source Performance Standard, 326 IAC 12, 40 CFR Part 60.250, Subpart Y. Particulate matter emissions from pneumatic coal cleaning equipment are limited to 0.040 grams per dry standard cubic meter (0.018 grains per dry standard cubic foot) of exhaust air and less than ten percent (10%) opacity.

The coal processing and conveying equipment, coal storage system, and coal transfer and loading systems are limited to less than (20%) percent opacity.

- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14 and 40 CFR Part 63) applicable to this source.

### **State Rule Applicability - Entire Source**

326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).

Prior to 1992, the coal preparation plant did not contain a thermal dryer and as such was not one of the twenty-eight (28) listed source categories pursuant to 326 IAC 2-2. Therefore, fugitive emissions did not count toward the PSD definition and since the potential non fugitive PM emissions were less than two hundred and fifty (250) tons per year, the source was a minor source pursuant to this rule.

The addition of the thermal dryer in 1992 qualified as a minor PSD modification to an existing minor PSD source because the potential to emit all regulated pollutants from the thermal dryer, after controls and production limits, was less than one hundred (100) tons per year. The addition of the thermal dryer in 1992 made the source one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and therefore fugitive emissions are now counted toward the PSD definition. This made the source an existing major source under the provisions of 326 IAC 2-2. Any future modifications shall be considered major modifications subject to PSD review under 326 IAC 2-2 unless the potential to emit is less than, or can be limited to, less than the PSD significant levels.

The original FESOP listed only the limited throughput to the coal preparation plant, whereas the description in this TSD also includes the maximum hourly throughput which has not increased since the plant was installed prior to 1970. Therefore, there is no PSD applicability issue due to the change in the description of the operations.

### 326 IAC 2-6 (Emission Reporting)

This source is located in Sullivan County and the potential to emit PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> are less than one hundred (100) tons per year of PM<sub>10</sub>. Therefore 326 IAC 2-6 does not apply.

### 326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM<sub>10</sub>, SO<sub>2</sub>, VOC, CO and NO<sub>x</sub> shall be limited to less than one hundred (100) tons per year. In addition, the amount of a single HAP shall be limited to less than ten (10) tons per year and the combination of all HAPs shall be limited to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

In order to comply with 326 IAC 2-8-4:

- (a) The amount of coal processed in the coal preparation plant shall not exceed 5,160,000 tons per three-hundred and sixty-five (365) consecutive day period and the amount of crushed coal shall not exceed 3,096,000 tons per three-hundred and sixty-five (365) consecutive day period, equivalent to total PM<sub>10</sub> emissions of 47.2 tons per year, consisting of 31.7 tons per year of nonfugitive emissions, equivalent to 7.24 pounds per hour.  
  
Peabody Coal Company requested that a three-hundred and sixty-five (365) consecutive day period for compliance be retained in the FESOP.
- (b) The PM<sub>10</sub> emissions from the fluidized bed thermal dryer shall not exceed 11.6 pounds per hour, equivalent to 50.8 tons per year. Therefore, the requirements of 326 IAC 2-7 do not apply.
- (c) The amount of coal burned in the fluidized bed thermal dryer burner shall not exceed 14,854 tons per three-hundred and sixty-five (365) consecutive day period, equivalent to sulfur dioxide (SO<sub>2</sub>) emissions of 99.0 tons per year.
- (d) The amount of diesel oil used for start-up in the fluidized bed thermal dryer burner shall not exceed 123.6 tons per three-hundred and sixty-five (365) consecutive day period, equivalent to sulfur dioxide (SO<sub>2</sub>) emissions of 0.130 tons per year. The 123.6 tons of diesel oil is equivalent to 123.6 tons \* 2000 pound/ 1 ton \* 1 / 7.05 pounds of diesel oil/gallon or 35,064 gallons of diesel oil per three-hundred and sixty-five (365) consecutive day period.
- (e) The NO<sub>x</sub> emissions from the fluidized bed thermal dryer shall be less than 22.0 pounds per hour, equivalent to less than 96.6 tons per year.

### 326 IAC 5-1 (Visible Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### State Rule Applicability - Individual Facilities

#### 326 IAC 6-3-2 (Process Operations: particulate emission limitations)

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the fluidized bed thermal dryer shall not exceed 67.7 pounds per hour when operating at a process weight rate of 450 tons per hour.

The PM potential after controls for the fluidized bed thermal dryer is 9.06 pounds per hour which complies with the allowable PM rate of 67.7 pounds per hour.

- (b) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the coal preparation plant screening and conveying operations shall not exceed 78.8 pounds per hour, each when operating at a process weight rate of 1,100 tons per hour.

The PM potential after controls for the screening and conveying operations are 9.43 and 11.8 pounds per hour, respectively. These potential emission rates both comply with the allowable PM rate of 78.8 pounds per hour.

- (c) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the coal preparation plant crushing operation shall not exceed 72.4 pounds per hour when operating at a process weight rate of 666 tons per hour.

The PM potential after controls for the crushing operation is 0.708 pounds per hour which complies with the allowable PM rate of 72.4 pounds per hour.

- (d) Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

#### 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

Fugitive particulate matter emissions shall be controlled according to the plan submitted with the Operation Permit 74-04-92-0056 issued on May 18, 1989 and contained in the FESOP 153-6411, issued December 11, 1996. The plan consists of spray water and chemical dust suppressants on road on an as-needed basis.

#### 326 IAC 7-1.1-2 (Sulfur dioxide emission limitations: specified)

Pursuant to 326 IAC 7-1.1-2(a) sulfur dioxide emissions from the coal combustion are limited to 6.0 pounds per million British thermal units heat input from coal since oil is combusted simultaneously.

Since the potential to emit sulfur dioxide on fuel oil for start-up is less than twenty-five (25) tons per year, this rule is not applicable to the diesel fuel oil.

### Testing Requirements

The FESOP, 153-6411 required PM, PM<sub>10</sub>, NO<sub>x</sub> and SO<sub>2</sub> testing of the fluidized bed thermal dryer to show compliance with NSPS Subpart Y of 0.031 grains per dry standard cubic foot and 326 IAC 2-8. Compliance Branch, OAQ determined that NO<sub>x</sub> testing was not necessary. Stack tests performed on October 23, 1997 could not test for the PM<sub>10</sub> limits listed in the FESOP because they

were written in terms of a 365-day rolling period, but since the proposed permit has an hourly  $PM_{10}$  limit, testing will be required. The source demonstrated compliance with the  $SO_2$  limits and the NSPS Subpart Y PM grain loading and opacity limits.

The following new testing requirements were incorporated into this FESOP, because Subpart Y also applies to any pneumatic coal cleaning equipment:

Within twelve (12) months after issuance of this permit or within five (5) years from the date of the last valid compliance test, in order to demonstrate compliance for the coal preparation plant with 326 IAC 6-3-2, Subpart Y PM grain loading and opacity limitations, the Permittee shall perform PM and opacity testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

The following testing requirements from previous approvals were incorporated into this FESOP:

Within five (5) years of the date of the last valid compliance test, in order to demonstrate compliance for the fluidized bed thermal dryer with 326 IAC 6-3-2, 326 IAC 2-8-4, Subpart Y grain loading and opacity limitations, the Permittee shall perform PM,  $PM_{10}$  and opacity testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.  $PM_{10}$  includes filterable and condensable  $PM_{10}$ . Testing shall be conducted in accordance with Section C- Performance Testing.

All testing requirements from previous approvals were incorporated into this FESOP except the following:

Condition D.2.4: The Permittee shall test for nitrogen oxides and sulfur dioxide emission factors in pounds per ton of coal burned after controls from the 90 million British thermal units per hour burner using methodology acceptable to the IDEM within 60 - 180 days of FESOP issuance and once every five (5) years, thereafter.

The previous performance test for sulfur dioxide showed compliance and  $NO_x$  was well within the FESOP limits based on emission factors used.

## **Compliance Requirements**

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

- (a) All compliance requirements from previous approvals were incorporated into this FESOP. The compliance monitoring requirements applicable to this fluidized bed thermal dryer are as follows:
- (1) Visible emissions notations of the fluidized bed thermal dryer exhaust shall be performed during normal daylight operations once per shift. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.
  - (2) The Permittee shall record the total static pressure drop and scrubbing liquor (water) flow rate readings across the venturi scrubber controlling the fluidized bed thermal dryer, at least once per shift when the fluidized bed thermal dryer is in operation. Unless operated under conditions for which the Compliance Response specifies otherwise, the pressure drop across the venturi scrubber shall be maintained within the range of 30.0 to 50.0 inches of water and the flow rate for the scrubbing liquor shall be maintained within the range of 160 to 180 gallons of water per minute or a range and a flow rate established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.
  - (3) The Permittee shall record the liquor recirculation rate and liquor pH once daily, as well as liquor solids/concentration, and liquor total dissolved solids once weekly for the venturi scrubber.
  - (4) The Permittee shall make internal inspection for air leaks and determine the fan condition and operation status once monthly for the venturi scrubber.
  - (5) The Permittee shall record the pH of the perforated tray scrubber liquor once daily. Unless operated under conditions for which the Compliance Response specifies otherwise, the pH of the perforated tray scrubber liquor shall be maintained at a pH no less than 6.5 or a pH established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pH is outside of the above mentioned range for any one reading.
  - (6) The Permittee shall record the sulfur content of the coal burned once daily.

These monitoring conditions are necessary because scrubber and perforated tray scrubber must operate properly to ensure compliance with 326 IAC 2-8 (FESOP).

- (b) The following new compliance requirements were incorporated into this FESOP for the fluidized bed thermal dryer:
- (1) The Permittee shall be perform an inspection each calender quarter of all cyclones controlling the fluidized bed thermal dryer operation when venting to the atmos-

phere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

- (2) In the event that cyclone failure has been observed: Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this proposed permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

These monitoring conditions are necessary because the cyclones for the thermal dryer must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations), NSPS Subpart Y and 326 IAC 2-8 (FESOP).

- (c) All compliance requirements from previous approvals were incorporated into this FESOP. The compliance monitoring requirements applicable to this coal preparation plant are as follows:

Visible emissions notations of the coal preparation plant shall be performed during normal daylight operations once per shift. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary because coal preparation plant must operate properly to ensure compliance with Subpart Y, 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

## Conclusion

The operation of this coal preparation source shall be subject to the conditions of the attached proposed FESOP No.: F 153-13965-00009.



## Appendix A: Emission Calculations

Page 1 of 10 TSD App A  
**FESOP: F 153-13965**  
**Pit ID: 153-00009**

**Company Name:** Peabody Coal Company  
**Address City IN Zip:** Junction of 59 and 159, Carlisle, Indiana 47838  
**Reviewer:** Mark L. Kramer  
**Date:** February 26, 2001

Combustion of Coal  
 Thermal Dryer (tons per hour) Based on a coal burn rate limit of 2,459 tons per month in the existing permit  
 as opposed to a theoretical maximum burn rate of 4.0 tons per hour

3.36849

### Potential Before Controls

Pollutant						
Emission Factor in lbs/ton	PM 2690	PM10 2690	SO2 78.41	NOx 9.43	VOC 0.00	CO 0.60
Potential Emission in tons/yr	39688	39688	1157	139	0.00	8.85

**PM, SO2, NOx and CO emission factors from June 1995 stack test before controls, and PM = PM-10**

Combustion of Coal  
 Thermal Dryer (tons per hour)

### Limited Production Before Controls Based on 14,854 Tons of Raw Coal Per Year

1.70

Pollutant						
Emission Factor in lbs/ton	PM 2690	PM10 2690	SO2 78.41	NOx 9.43	VOC 0.00	CO 0.60
Potential Emission in tons/yr	19979	19979	582	70.0	0.00	4.46

Combustion of Coal  
 Thermal Dryer (tons per hour) Based on a coal burn rate limit of 2,459 tons per month in the existing permit  
 as opposed to a theoretical maximum burn rate of 4.0 tons per hour

3.36849

### Potential After Controls

Pollutant						
Emission Factor in lbs/ton	PM 2.69	PM10 1.59	SO2 13.33	NOx 6.42	VOC 0.00	CO 0.60
Potential Emission in tons/yr	39.7	23.5	197	94.7	0.00	8.85

**Emission Factors for PM-10, SO2 and NOx are from June 1995 stack tests and PM control of 99.9%**

Combustion of Coal  
 Thermal Dryer (tons per hour)

### Limited Production After Controls Based on 14,854 Tons of Raw Coal Per Year

1.70

Pollutant						
Emission Factor in lbs/ton	PM 2.69	PM10 1.59	SO2 13.33	NOx 6.42	VOC 0.00	CO 0.60
Potential Emission in tons/yr	<b>20.0</b>	<b>11.8</b>	<b>99.0</b>	<b>47.7</b>	<b>0.00</b>	<b>4.46</b>

# Appendix A: Emission Calculations

**Company Name:** Peabody Coal Company  
**Address City IN Zip:** Junction of 59 and 159, Carlisle, Indiana 47838  
**FESOP:** F 153-13965  
**Plt ID:** 153-00009  
**Reviewer:** Mark L. Kramer  
**Date:** February 26, 2001

The application is based on a production schedule of potential, the data has been multiplied by of production rates).

8760 hr/yr. To obtain maximum  
1.00 (except for storage emissions, which are independent

$$8760 \text{ hr/yr} / 8760 \text{ hr/yr} = 1.00$$

The emissions for particulate matter, pursuant to 326 IAC 2-1, are as follows:

Preparation Plant:

Transportation		** see pages 3, 4 and 5 **			227.75 tons/yr	
Storage		** see page 3 **			7.11 tons/yr	AP-42 Ch.11.2.3
Unloading Raw Coal	9,636,000 tons/yr x	0.02 lb/ton	/ 2000 lb/ton x	1.00 =	96.36 tons/yr	SCC #3-05-010-08
Crushing	5,834,160 tons/yr x	0.02 lb/ton	/ 2000 lb/ton x	1.00 =	58.34 tons/yr	SCC #3-05-010-10
Screening	9,636,000 tons/yr x	0.16 lb/ton	/ 2000 lb/ton x	1.00 =	770.88 tons/yr	SCC #3-05-010-12
Conveying	9,636,000 tons/yr x	0.2 lb/ton	/ 2000 lb/ton x	1.00 =	963.60 tons/yr	SCC #3-05-010-11
Loading Finished Coal	9,636,000 tons/yr x	0.1 lb/ton	/ 2000 lb/ton x	1.00 =	481.80 tons/yr	SCC #3-05-010-15
Total for Preparation Plant:				PM =	2605.84 tons/yr	
		PM-10 = 0.25 * PM		PM-10 =	651.46 tons/yr	

\*\* emissions after controls \*\*

Preparation Plant:

Transportation	227.75 tons/yr x	50% emitted after controls =	113.87 tons/yr	
Storage	7.11 tons/yr x	10% emitted after controls =	0.71 tons/yr	
Unloading Raw Coal	96.36 tons/yr x	10% emitted after controls =	9.64 tons/yr	
Crushing	58.34 tons/yr x	10% emitted after controls =	5.83 tons/yr	
Screening	770.88 tons/yr x	10% emitted after controls =	77.09 tons/yr	
Conveying	963.60 tons/yr x	10% emitted after controls =	96.36 tons/yr	
Loading Finished Coal	481.80 tons/yr x	10% emitted after controls =	48.18 tons/yr	
Total for Preparation Plant:			351.68 tons/yr	
			Nonfugitive PM =	237.1 tons/yr
Total Emissions After Controls:			PM =	351.68 tons/yr
		PM-10 = 0.25 * PM	PM-10 =	87.92 tons/yr
		Nonfugitive PM-10		59.27 tons/yr

**\* \* storage \* \***

Storage emissions, which result from wind erosion, are determined by the following calculations:

$$\begin{aligned} E_f &= 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15) \\ &= 5.67 \text{ lb/acre/day} \\ \text{where } s &= 4.9 \text{ \% silt} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ f &= 15 \text{ \% of wind greater than or equal to 12 mph} \end{aligned}$$

$$\begin{aligned} E_p (\text{storage}) &= E_f \cdot sc \cdot (40 \text{ cuft/ton}) / (2000 \text{ lb/ton}) / (43560 \text{ sqft/acre}) / (25 \text{ ft}) \cdot (365 \text{ day/yr}) \\ &= 7.11 \text{ tons/yr} \\ \text{where } sc &= 187,000 \text{ tons storage capacity} \end{aligned}$$

**\* \* unpaved roads \* \***

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

**GOB Collection**

$$\begin{aligned} &2.76381 \text{ trips/hour} \times \\ &0.19 \text{ mile/trip} \times \\ &2 \text{ (round trip) } \times \\ &8760 \text{ hr/yr} = 9200.184 \text{ miles per year maximum} \end{aligned}$$

$$\begin{aligned} E_f &= 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 21.09 \text{ lb/mile} \\ \text{where } s &= 8.4 \text{ \% silt} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr} \\ W &= 140 \text{ tons vehicle weight} \\ w &= 10 \text{ wheels} \end{aligned}$$

$$\frac{21.09 \text{ lb/mi} \times 9200.184 \text{ mi/yr}}{2000 \text{ lb/ton}} = 97.00 \text{ tons/yr}$$

### GOB Removal

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

Page 4 of 10 TSD APP A  
**FESOP: F 153-13965**  
**Plt ID: 153-00009**

$$\begin{aligned} & 2.76381 \text{ trips/hour} \times \\ & 0.14 \text{ mile/trip} \times \\ & 2 \text{ (round trip) } \times \\ & 8760 \text{ hr/yr} = 6779.083 \text{ miles per year maximum} \end{aligned}$$

$$\begin{aligned} E_f &= 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 28.35 \text{ lb/mile} \\ \text{where } s &= 8.4 \text{ \% silt} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr} \\ W &= 214 \text{ tons vehicle weight} \\ w &= 10 \text{ wheels} \end{aligned}$$
$$\frac{28.35 \text{ lb/mi} \times 6779.083 \text{ mi/yr}}{2000 \text{ lb/ton}} = 96.10 \text{ tons/yr}$$

### Product to Loading

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

$$\begin{aligned} & 0.54156 \text{ trips/hour} \times \\ & 0.125 \text{ mile/trip} \times \\ & 2 \text{ (round trip) } \times \\ & 8760 \text{ hr/yr} = 1186.012 \text{ miles per year maximum} \end{aligned}$$

$$\begin{aligned} E_f &= 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 5.70 \text{ lb/mile} \\ \text{where } s &= 8.4 \text{ \% silt} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr} \\ W &= 17 \text{ tons vehicle weight} \\ w &= 14 \text{ wheels} \end{aligned}$$
$$\frac{5.70 \text{ lb/mi} \times 1186.012 \text{ mi/yr}}{2000 \text{ lb/ton}} = 3.38 \text{ tons/yr}$$

### Product From Loading

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

Page 5 of 10 TSD APP A  
**FESOP: F 153-13965**  
**Plt ID: 153-00009**

$$\begin{aligned} &0.54156 \text{ trips/hour} \times \\ &0.125 \text{ mile/trip} \times \\ &2 \text{ (round trip) } \times \\ &8760 \text{ hr/yr} = 1186.012 \text{ miles per year maximum} \end{aligned}$$

$$\begin{aligned} E_f &= 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 9.83 \text{ lb/mile} \\ \text{where } s &= 8.4 \text{ \% silt} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr} \\ W &= 37 \text{ tons vehicle weight} \\ w &= 14 \text{ wheels} \end{aligned}$$

$$\frac{9.83 \text{ lb/mi} \times 1186.012 \text{ mi/yr}}{2000 \text{ lb/ton}} = 5.83 \text{ tons/yr}$$

### Maintenance and Passenger Vehicles

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

$$\begin{aligned} &23.1563 \text{ trips/hour} \times \\ &0.225 \text{ mile/trip} \times \\ &2 \text{ (round trip) } \times \\ &8760 \text{ hr/yr} = 91282.05 \text{ miles per year maximum} \end{aligned}$$

$$\begin{aligned} E_f &= 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 0.56 \text{ lb/mile} \\ \text{where } s &= 8.4 \text{ \% silt} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr} \\ W &= 2 \text{ tons vehicle weight} \\ w &= 4 \text{ wheels} \end{aligned}$$

$$\frac{0.56 \text{ lb/mi} \times 91282.05 \text{ mi/yr}}{2000 \text{ lb/ton}} = 25.43 \text{ tons/yr}$$

Total Transportation 227.7

### Limited Throughput

The application is based on a production schedule of potential, the data has been multiplied by of production rates).

8760 hr/yr. To obtain maximum  
1.00 (except for storage emissions, which are independent

$$8760 \text{ hr/yr} / 8760 \text{ hr/yr} = 1.00$$

The emissions for particulate matter, pursuant to 326 IAC 2-1, are as follows:

#### Preparation Plant:

Transportation		** see pages 3, 4 and 5 **			121.96 tons/yr	
Storage		** see page 3 **			7.11 tons/yr	AP-42 Ch.11.2.3
Unloading Raw Coal	5,160,000 tons/yr x	0.02 lb/ton	/ 2000 lb/ton x	1.00 =	51.60 tons/yr	SCC #3-05-010-08
Crushing	3,096,000 tons/yr x	0.02 lb/ton	/ 2000 lb/ton x	1.00 =	30.96 tons/yr	SCC #3-05-010-10
Screening	5,160,000 tons/yr x	0.16 lb/ton	/ 2000 lb/ton x	1.00 =	412.80 tons/yr	SCC #3-05-010-12
Conveying	5,160,000 tons/yr x	0.2 lb/ton	/ 2000 lb/ton x	1.00 =	516.00 tons/yr	SCC #3-05-010-11
Loading Finished Coal	5,160,000 tons/yr x	0.1 lb/ton	/ 2000 lb/ton x	1.00 =	258.00 tons/yr	SCC #3-05-010-15
Total for Preparation Plant:				PM =	1398.43 tons/yr	
		PM-10 = 0.25 * PM		PM-10 =	349.61 tons/yr	

\*\* emissions after controls \*\*

#### Preparation Plant:

Transportation	121.96 tons/yr x	50% emitted after controls =	60.98 tons/yr	
Storage	7.11 tons/yr x	10% emitted after controls =	0.71 tons/yr	
Unloading Raw Coal	51.60 tons/yr x	10% emitted after controls =	5.16 tons/yr	
Crushing	30.96 tons/yr x	10% emitted after controls =	3.10 tons/yr	
Screening	412.80 tons/yr x	10% emitted after controls =	41.28 tons/yr	
Conveying	516.00 tons/yr x	10% emitted after controls =	51.60 tons/yr	
Loading Finished Coal	258.00 tons/yr x	10% emitted after controls =	25.80 tons/yr	
Total for Preparation Plant:			188.63 tons/yr	
			Nonfugitive PM =	126.9 tons/yr
Total Emissions After Controls:			PM =	188.63 tons/yr
		PM-10 = 0.25 * PM	PM-10 =	47.16 tons/yr
		Nonfugitive PM-10		31.73 tons/yr

**\* \* storage \* \***

Storage emissions, which result from wind erosion, are determined by the following calculations:

$$\begin{aligned} E_f &= 1.7 \cdot (s/1.5) \cdot (365-p)/235 \cdot (f/15) \\ &= 5.67 \text{ lb/acre/day} \\ \text{where } s &= 4.9 \text{ \% silt} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ f &= 15 \text{ \% of wind greater than or equal to 12 mph} \end{aligned}$$

$$\begin{aligned} E_p (\text{storage}) &= E_f \cdot sc \cdot (40 \text{ cuft/ton}) / (2000 \text{ lb/ton}) / (43560 \text{ sqft/acre}) / (25 \text{ ft}) \cdot (365 \text{ day/yr}) \\ &= 7.11 \text{ tons/yr} \\ \text{where } sc &= 187,000 \text{ tons storage capacity} \end{aligned}$$

**\* \* unpaved roads \* \***

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

**GOB Collection**

$$\begin{aligned} &1.48 \text{ trips/hour} \times \\ &0.19 \text{ mile/trip} \times \\ &2 \text{ (round trip) } \times \\ 8760 \text{ hr/yr} &= 4926.624 \text{ miles per year maximum} \end{aligned}$$

$$\begin{aligned} E_f &= 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 21.09 \text{ lb/mile} \\ \text{where } s &= 8.4 \text{ \% silt} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr} \\ W &= 140 \text{ tons vehicle weight} \\ w &= 10 \text{ wheels} \end{aligned}$$

$$\frac{21.09 \text{ lb/mi} \times 4926.624 \text{ mi/yr}}{2000 \text{ lb/ton}} = 51.94 \text{ tons/yr}$$

### GOB Removal

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

Page 8 of 10 TSD APP A  
**FESOP: F 153-13965**  
**Plt ID: 153-00009**

$$\begin{aligned} & 1.48 \text{ trips/hour} \times \\ & 0.14 \text{ mile/trip} \times \\ & 2 \text{ (round trip) } \times \\ & 8760 \text{ hr/yr} = 3630.144 \text{ miles per year maximum} \end{aligned}$$

$$\begin{aligned} E_f &= 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 28.35 \text{ lb/mile} \\ \text{where } s &= 8.4 \text{ \% silt} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr} \\ W &= 214 \text{ tons vehicle weight} \\ w &= 10 \text{ wheels} \end{aligned}$$
$$\frac{28.35 \text{ lb/mi} \times 3630.144 \text{ mi/yr}}{2000 \text{ lb/ton}} = 51.46 \text{ tons/yr}$$

### Product to Loading

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

$$\begin{aligned} & 0.29 \text{ trips/hour} \times \\ & 0.125 \text{ mile/trip} \times \\ & 2 \text{ (round trip) } \times \\ & 8760 \text{ hr/yr} = 635.1 \text{ miles per year maximum} \end{aligned}$$

$$\begin{aligned} E_f &= 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 5.70 \text{ lb/mile} \\ \text{where } s &= 8.4 \text{ \% silt} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr} \\ W &= 17 \text{ tons vehicle weight} \\ w &= 14 \text{ wheels} \end{aligned}$$
$$\frac{5.70 \text{ lb/mi} \times 635.1 \text{ mi/yr}}{2000 \text{ lb/ton}} = 1.81 \text{ tons/yr}$$



### Product From Loading

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

Page 9 of 10 TSD APP A  
**FESOP: F 153-13965**  
**Plt ID: 153-00009**

$$\begin{aligned} &0.29 \text{ trips/hour} \times \\ &0.125 \text{ mile/trip} \times \\ &2 \text{ (round trip) } \times \\ &8760 \text{ hr/yr} = 635.1 \text{ miles per year maximum} \end{aligned}$$

$$\begin{aligned} E_f &= 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 9.83 \text{ lb/mile} \\ \text{where } s &= 8.4 \text{ \% silt} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr} \\ W &= 37 \text{ tons vehicle weight} \\ w &= 14 \text{ wheels} \end{aligned}$$
$$\frac{9.83 \text{ lb/mi} \times 635.1 \text{ mi/yr}}{2000 \text{ lb/ton}} = 3.12 \text{ tons/yr}$$

### Maintenance and Passenger Vehicles

The following calculations determine the amount of emissions created by unpaved roads, based on 8760 hours of use and AP-42, Ch 11.2.1.

$$\begin{aligned} &12.4 \text{ trips/hour} \times \\ &0.225 \text{ mile/trip} \times \\ &2 \text{ (round trip) } \times \\ &8760 \text{ hr/yr} = 48880.8 \text{ miles per year maximum} \end{aligned}$$

$$\begin{aligned} E_f &= 5.9 \cdot (s/12) \cdot (S/30) \cdot (W/3)^{0.7} \cdot (w/4)^{0.5} \cdot ((365-p)/365) \\ &= 0.56 \text{ lb/mile} \\ \text{where } s &= 8.4 \text{ \% silt} \\ p &= 125 \text{ days of rain greater than or equal to 0.01 inches} \\ S &= 10 \text{ miles/hr} \\ W &= 2 \text{ tons vehicle weight} \\ w &= 4 \text{ wheels} \end{aligned}$$
$$\frac{0.56 \text{ lb/mi} \times 48880.8 \text{ mi/yr}}{2000 \text{ lb/ton}} = 13.62 \text{ tons/yr}$$

Total Transportation 122.0

**Insignificant Activities****Kerosene Heaters****2 at 0.350 mmBtu/hr and 4 at 0.150 mmBtu/hr for 90 days/year at 16 hours per day**

Page 10 of 10 TSD APP

**FESOP: F 153-13965****Plt ID: 153-00009**Heat Input Capacity  
MMBtu/hrPotential Throughput  
kgals/yearPotential Throughput  
kgals/90 days @ 16hr/day

1.300

84.36

13.87

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	33.5	32.0	6.2000	469.0	32.1	102.0
Potential Emission in tons/yr	0.232	0.222	0.043	3.252	0.223	0.707

SCC 02-01-009-02

**Methodology**

1 gallon of Kerosene has a heating value of 135,000 Btu

(Source - AP-42 (Supplement B 10/96) page 1.5-1)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.135 MMBtu

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton

**Thermal Dryer or Prep Plant for 90 days/year at 16 hours per day****Propane****1.00 mmBtu/hr**Heat Input Capacity  
MMBtu/hrPotential Throughput  
kgals/yearSO2 Emission factor = 86.5 x S  
S = Sulfur Content =

0.10

1.0000

95.74

15.74

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	0.6	0.6	8.6500 (86.5S)	19.0	0.3	3.2
Potential Emission in tons/yr	0.005	0.005	0.068	0.150	0.002	0.025

Emission Factors from FIRES 6.22

**Methodology**

1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton

**Total Combustion From Insignificant Activities**

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Potential Emission in tons/yr	0.237	0.227	0.111	3.401	0.225	0.732

## § 60.244

this subpart shall install, calibrate, maintain, and operate a monitoring device which continuously measures and permanently records the total pressure drop across any process scrubbing system. The monitoring device shall have an accuracy of  $\pm 5$  percent over its operating range.

(d) The owner or operator of any granular triple superphosphate storage facility subject to the provisions of this subpart shall develop for approval by the Administrator a site-specific methodology including sufficient recordkeeping for the purposes of demonstrating compliance with § 60.242 (b).

[40 FR 33156, Aug. 6, 1975, as amended at 54 FR 6671, Feb. 14, 1989; 62 FR 18280, Apr. 15, 1997]

### § 60.244 Test methods and procedures.

(a) The owner or operator shall conduct performance tests required in § 60.8 only when the following quantities of product are being cured or stored in the facility.

(1) Total granular triple superphosphate is at least 10 percent of the building capacity, and

(2) Fresh granular triple superphosphate is at least 6 percent of the total amount of triple superphosphate, or

(3) If the provision in paragraph (a)(2) of this section exceeds production capabilities for fresh granular triple superphosphate, fresh granular triple superphosphate is equal to at least 5 days maximum production.

(b) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(c) The owner or operator shall determine compliance with the total fluorides standard in § 60.242 as follows:

(1) The emission rate (E) of total fluorides shall be computed for each run using the following equation:

$$E = \left( \sum_{i=1}^N C_{si} Q_{sdi} \right) / (PK)$$

where:

E=emission rate of total fluorides, g/hr/metric ton (lb/hr/ton) of equivalent  $P_2O_5$  stored.

## 40 CFR Ch. I (7-1-00 Edition)

$C_{si}$ =concentration of total fluorides from emission point "i," mg/dscm (mg/dscf).

$Q_{sdi}$ =volumetric flow rate of effluent gas from emission point "i," dscm/hr (dscf/hr).

N=number of emission points in the affected facility.

P=equivalent  $P_2O_5$  stored, metric tons (tons).

K=conversion factor, 1000 mg/g (453,600 mg/lb).

(2) Method 13A or 13B shall be used to determine the total fluorides concentration ( $C_{si}$ ) and volumetric flow rate ( $Q_{sdi}$ ) of the effluent gas from each of the emission points. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf).

(3) The equivalent  $P_2O_5$  feed rate (P) shall be computed for each run using the following equation:

$$P = M_p R_p$$

where:

$M_p$ =amount of product in storage, metric ton (ton).

$R_p$ = $P_2O_5$  content of product in storage, weight fraction.

(i) The accountability system of § 60.243(a) shall be used to determine the amount of product ( $M_p$ ) in storage.

(ii) The Association of Official Analytical Chemists (AOAC) Method 9 (incorporated by reference—see § 60.17) shall be used to determine the  $P_2O_5$  content ( $R_p$ ) of the product in storage.

[54 FR 6671, Feb. 14, 1989, as amended at 62 FR 18280, Apr. 15, 1997]

## Subpart Y—Standards of Performance for Coal Preparation Plants

### § 60.250 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to any of the following affected facilities in coal preparation plants which process more than 200 tons per day: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, and coal transfer and loading systems.

(b) Any facility under paragraph (a) of this section that commences construction or modification after October

## Environmental Protection Agency

## § 60.253

24, 1974, is subject to the requirements of this subpart.

[42 FR 37938, July 25, 1977; 42 FR 44812, Sept. 7, 1977]

### § 60.251 Definitions.

As used in this subpart, all terms not defined herein have the meaning given them in the Act and in subpart A of this part.

(a) *Coal preparation plant* means any facility (excluding underground mining operations) which prepares coal by one or more of the following processes: breaking, crushing, screening, wet or dry cleaning, and thermal drying.

(b) *Bituminous coal* means solid fossil fuel classified as bituminous coal by ASTM Designation D388-77 (incorporated by reference—see § 60.17).

(c) *Coal* means all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM Designation D388-77 (incorporated by reference—see § 60.17).

(d) *Cyclonic flow* means a spiraling movement of exhaust gases within a duct or stack.

(e) *Thermal dryer* means any facility in which the moisture content of bituminous coal is reduced by contact with a heated gas stream which is exhausted to the atmosphere.

(f) *Pneumatic coal-cleaning equipment* means any facility which classifies bituminous coal by size or separates bituminous coal from refuse by application of air stream(s).

(g) *Coal processing and conveying equipment* means any machinery used to reduce the size of coal or to separate coal from refuse, and the equipment used to convey coal to or remove coal and refuse from the machinery. This includes, but is not limited to, breakers, crushers, screens, and conveyor belts.

(h) *Coal storage system* means any facility used to store coal except for open storage piles.

(i) *Transfer and loading system* means any facility used to transfer and load coal for shipment.

[41 FR 2234, Jan. 15, 1976, as amended at 48 FR 3738, Jan. 27, 1983]

### § 60.252 Standards for particulate matter.

(a) On and after the date on which the performance test required to be conducted by § 60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any thermal dryer gases which:

(1) Contain particulate matter in excess of 0.070 g/dscm (0.031 gr/dscf).

(2) Exhibit 20 percent opacity or greater.

(b) On and after the date on which the performance test required to be conducted by § 60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any pneumatic coal cleaning equipment, gases which:

(1) Contain particulate matter in excess of 0.040 g/dscm (0.018 gr/dscf).

(2) Exhibit 10 percent opacity or greater.

(c) On and after the date on which the performance test required to be conducted by § 60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

[41 FR 2234, Jan. 15, 1976]

### § 60.253 Monitoring of operations.

(a) The owner or operator of any thermal dryer shall install, calibrate, maintain, and continuously operate monitoring devices as follows:

(1) A monitoring device for the measurement of the temperature of the gas stream at the exit of the thermal dryer on a continuous basis. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 3$  °Fahrenheit.

(2) For affected facilities that use venturi scrubber emission control equipment:

(i) A monitoring device for the continuous measurement of the pressure loss through the venturi constriction of the control equipment. The monitoring device is to be certified by the

## § 60.254

manufacturer to be accurate within  $\pm 1$  inch water gage.

(ii) A monitoring device for the continuous measurement of the water supply pressure to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within  $\pm 5$  percent of design water supply pressure. The pressure sensor or tap must be located close to the water discharge point. The Administrator may be consulted for approval of alternative locations.

(b) All monitoring devices under paragraph (a) of this section are to be recalibrated annually in accordance with procedures under § 60.13(b).

[41 FR 2234, Jan. 15, 1976, as amended at 54 FR 6671, Feb. 14, 1989]

## § 60.254 Test methods and procedures.

(a) In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in § 60.8(b).

(b) The owner or operator shall determine compliance with the particular matter standards in § 60.252 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin.

(2) Method 9 and the procedures in § 60.11 shall be used to determine opacity.

[54 FR 6671, Feb. 14, 1989]

## Subpart Z—Standards of Performance for Ferroalloy Production Facilities

SOURCE: 41 FR 18501, May 4, 1976, unless otherwise noted.

## § 60.260 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to the following affected facilities: Electric submerged arc furnaces which produce silicon metal, ferrosilicon, calcium silicon,

## 40 CFR Ch. I (7–1–00 Edition)

silicomanganese zirconium, ferrochrome silicon, silvery iron, high-carbon ferrochrome, charge chrome, standard ferromanganese, silicomanganese, ferromanganese silicon, or calcium carbide; and dust-handling equipment.

(b) Any facility under paragraph (a) of this section that commences construction or modification after October 21, 1974, is subject to the requirements of this subpart.

[42 FR 37938, July 25, 1977]

## § 60.261 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Act and in subpart A of this part.

(a) *Electric submerged arc furnace* means any furnace wherein electrical energy is converted to heat energy by transmission of current between electrodes partially submerged in the furnace charge.

(b) *Furnace charge* means any material introduced into the electric submerged arc furnace, and may consist of, but is not limited to, ores, slag, carbonaceous material, and limestone.

(c) *Product change* means any change in the composition of the furnace charge that would cause the electric submerged arc furnace to become subject to a different mass standard applicable under this subpart.

(d) *Slag* means the more or less completely fused and vitrified matter separated during the reduction of a metal from its ore.

(e) *Tapping* means the removal of slag or product from the electric submerged arc furnace under normal operating conditions such as removal of metal under normal pressure and movement by gravity down the spout into the ladle.

(f) *Tapping period* means the time duration from initiation of the process of opening the tap hole until plugging of the tap hole is complete.

(g) *Furnace cycle* means the time period from completion of a furnace product tap to the completion of the next consecutive product tap.

(h) *Tapping station* means that general area where molten product or slag is removed from the electric submerged arc furnace.